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CTIA

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Telecommunications
Industry Association
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RECEIVED

MAR - 6 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Ex Parte Contact: Microwave Relocation -
RM 8643
WT Docket No. 95-197

On Wednesday, March 6, 1996, Mr. Randall S. Coleman, Vice President for Regulatory Policy and Law, Cellular Telecommunications Industry Association ("CTIA"), sent the attached documents to the listed FCC personnel.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter and the documents are being filed with your office. If there are any questions in this regard, please contact the undersigned.

Sincerely,

3. LVL

Jimmy L. Vaughan
Research Associate

No. of Copies rec'd
List ABCDE

Mr. Rudy Baca, Legal Advisor, Commissioner James H. Quello
Ms. Lauren "Pete" Belvin, Senior Legal Advisor, Commissioner James H. Quello
Ms. Karen Brinkmann, Senior Legal Advisor, Wireless Telecommunications Bureau
Mr. James Casserly, Senior Legal Advisor, Commissioner Susan Ness
Ms. Jackie Chorney, Assistant Bureau Chief, Wireless Telecommunications Bureau
Mr. John Cimko, Chief, Policy Division, Wireless Telecommunications Bureau
Mr. James Coltharp, Chief Economist, Wireless Telecommunications Bureau
Mr. Howard Davenport, Chief, Enforcement Division, Wireless Telecommunications Bureau
Mr. Joseph Farrell, Chief Economist, Office of Plans and Policy
Mr. David Furth, Chief, Commercial Wireless Division, Wireless Telecommunications Bureau
Mr. Don Gips, Deputy Chief, Office of Plans and Policy
Mr. Daniel Gonzalez, Legal Advisor, Commissioner Rachelle B. Chong
Mr. Michael K. Hamra, Legal Advisor, Wireless Telecommunications Bureau
Mr. William Kennard, General Counsel
Ms. Linda Kinney, Attorney, Commercial Wireless Bureau
Mr. Blair Levin, Chief of Staff, Chairman Reed E. Hundt
Ms. Jane Mago, Senior Legal Advisor, Commissioner Rachelle B. Chong
Mr. Steve Markendorff, Chief, Broadband Branch, Wireless Telecommunications Bureau
Mr. Jay Markley, Jr., Telecommunications Analyst, Wireless Telecommunications Bureau
Ms. Mary McManus, Legal Advisor, Commissioner Susan Ness
Ms. Ruth Milkman, Senior Legal Advisor, Chairman Reed E. Hundt
Ms. Sally Novak, Chief-Legal Branch, Wireless Telecommunications Bureau
Mr. Myron Peck, Deputy Chief-Enforcement Division, Wireless Telecommunications Bureau
Dr. Robert Pepper, Chief, Office of Plans and Policy
Mr. Greg Rosston, Deputy Chief Economist, Office of Plans and Policy
Mr. David Siddall, Legal Advisor, Commissioner Susan Ness
Mr. Todd Silbergeld, Legal Advisor, Commissioner Andrew C. Barrett
Ms. Lisa Smith, Legal Advisor, Commissioner Andrew C. Barrett
Mr. Peter Tenhula, Special Counsel, Office of the General Counsel
Ms. Suzanne Toller, Legal Advisor, Commissioner Rachelle B. Chong
Mr. Gerald Vaughan, Deputy Chief, Wireless Telecommunications Bureau
Mr. Michael Wack, Deputy Chief, Policy Division, Wireless Telecommunications Bureau
Mr. John Williams, Office of Plans and Policy
Mr. David P. Wye, Technical Advisor, Wireless Telecommunications Bureau

REVIEW & OUTLOOK

Disconnect the Local Phone Monopoly

By WAYNE SCHELLE

After 60 years, we finally have a new communications law. Congress passed it by a large margin, and the president signed it with great ceremony. But now it's up to the Federal Communications Commission to decide just how pro-competitive the new policies will be.

Consumers will benefit from the new law because it begins breaking the local telephone service monopoly. In return, the Bell companies will be allowed to provide long-distance service for the first time since the breakup of AT&T. A coming FCC decision on "interconnection," the right of new competitors to connect to the local telephone network, is the first test of whether the new policy will succeed.

Interconnection pricing has tied up the FCC, carriers, Congress and the courts for decades battling over issues such as the fees that long-distance companies and cellular carriers must pay local phone companies to "terminate" calls on monopoly networks. With so many lawyers, accountants, bureaucrats and lobbyists resolving these questions, real competition hasn't emerged.

In a tentative decision of remarkable simplicity but enormous importance, the FCC already has marked a change of course. The FCC proposed new rules to allow interconnection for "wireless" carriers, which include not only existing cellular firms but also new personal communications services companies like mine (which is marketed as "Sprint Spectrum" PCS in Washington/Baltimore). Under this tentative decision, companies like mine would be able to compete on an equal footing with giants like the Bell companies. We would be able to offer a real alternative in residential phone service.

New services would be provided by a competitive marketplace. Consumer prices would fall.

As many have observed, however, monopolists universally recommend competition for all markets other than their own. The FCC's tentative decision to spur competition will be attacked by lawyers and lobbyists for those who would preserve their local monopolies at the expense of permitting new services and lower prices for subscribers. Before we can take ad-

The FCC's tentative decision to spur competition will be attacked by lawyers and lobbyists for those who would preserve their local monopolies at the expense of permitting new services and lower prices for subscribers.

vantage of the FCC's proposed interconnection policy, it must be finalized in rules. Whether a pro-competitive policy can survive the rigors of the regulatory process remains to be seen.

Despite the lore that has been built up around it, "interconnection" is not an arcane topic just for economists, accountants and lawyers. Essentially, it means access: Can new competitors like my company have access to the millions of subscribers that have had no choice for decades but to subscribe to monopoly telephone service? If we cannot send

calls to those numbers on a fair basis, we will never be able to offer residential service.

Under current, non-regulated "private negotiations," Bell companies charge new competitors as much as three cents per minute just to send these calls through their systems, even though the cost of sending these calls is next to nothing. This prevents new competitors from ever offering competitive service—the average residential caller uses 1,200 minutes per month, and the interconnection charge for that month alone would be \$36. The monopoly carrier offers its own phone service for half of that amount. Obviously, no new competitor can enter that market.

Under the FCC's common-sense proposal, telephone companies would follow the same pricing for competitors as they do for neighboring telephone companies. Each carrier that initiates a call keeps the customer charges for that call, and similarly agrees to terminate calls originating on others' networks at no charge to those carriers, which likewise keep all the charges. It's called "bill and keep," and it's the same policy that has been behind the explosive growth of the Internet. If adopted, it will play the same role in spurring new competition as it did in expanding Internet access. It doesn't require a huge bureaucracy and endless litigation, as current policies do.

Telephone monopolies will claim this is unfair because some 94% of telephone traffic goes from the wireless callers to hard-wired phones; therefore, they say, wireless companies impose more costs on them than do neighboring phone companies. But these facts are based on a cellular model that is a relic of the past. Our service in Washington/Baltimore gets just as much

traffic from Bell Atlantic subscribers as Bell Atlantic gets from ours.

Because the first minute of all our inbound calls is free to our subscribers and because we have integrated voice mail, our subscribers give out their numbers and receive a high volume of calls. In Europe, the same patterns have appeared when new PCS companies emerge and follow similar policies. It's a first taste of real competition in the market for residential and business telephone service. And it is a fair environment for a "bill and keep" policy.

If this competition is allowed to flourish by a new, enlightened interconnection policy, all sides will benefit. New competitors will enter the market and prices to consumers will fall. Good new jobs will be created—in an era when AT&T and the Bell companies are laying off workers by the thousands, companies like mine are growing exponentially. We have gone from 40 workers to 400 in the past year alone, and we are hiring literally every day. Even local phone companies won't be harmed by this new policy. New services and lower prices stimulate demand, which creates a bigger economic pie for everyone.

In the midst of attacks on "big government," it is worth pointing out an instance when government does something right. This is what the new communications law is supposed to be about: more competition and less government. Congratulations to the FCC on a proposal that works against the monopolists and their lobbyists.

Mr. Schelle is the chairman and founder of American Personal Communications, the first wireless PCS provider. He also was a pioneer in the cellular industry, founding Cellular One in Washington.



**Building The
Wireless Future.**

CTIA

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Thomas E. Wheeler
President / CEO

March 1, 1996

RECEIVED

MAR - 1 1996

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY**

The Honorable Reed E. Hundt
Chairman
Federal Communications Commission
1919 M Street, NW
Room 814
Washington, DC 20554-0001

**Re: Amendment of the Commission's Rules Regarding a Plan
for Sharing the Costs of Microwave Relocation
(WT Docket No. 95-157, RM 8642)**

Dear Mr. Chairman:

We have written to you several times on the subject of microwave relocation and, in particular, the trend which continues to threaten the timely rollout of broadband PCS. As we have detailed in previous letters, certain incumbent microwave operators in the 2 gigahertz (GHz) band are using their status as FCC licensees to make unconscionable demands of the new PCS licensees as a pre-condition to the relocation of their facilities which must occur prior to the offering of PCS.

This further correspondence is a plea for the Commission to act. The continued failure to act in this matter is jeopardizing the fulfillment of the Commission's PCS vision.

As we have also noted, except in the most egregious circumstances, PCS licensees are reluctant to go public with their frustrations over the recalcitrant behavior of microwave incumbents. This reticence is due to their fear of even greater delay in bringing incumbents to the bargaining table or the risk of future retribution in cases where the incumbent is also a governmental body.

Today, it is my unfortunate duty to further report several representative cases in which the microwave incumbents' behavior is so outlandish and irresponsible as to threaten the ability of PCS licensees to begin offering service this year. The enormity of the impact of this situation has compelled one PCS company, a member of CTIA, to risk the potential retribution resulting from public disclosure.

Chairman Hundt
 March 1, 1996
 Page Two'

Sprint Spectrum (formerly Sprint Telecommunications Venture or **STV**) is currently licensed to provide service in twenty-nine MTA markets.¹ Approximately 1,400 microwave links are located within Sprint Spectrum's licensed spectrum bands, making it the MTA licensee with the greatest number of links that may require relocation. By its own estimate, 71 of those links must be relocated to initiate service throughout its markets. Of course, as capacity requirements expand with subscriber growth, additional links will have to be moved, as well.

The attached materials detail the outrageous financial demands of certain microwave incumbents having links in Sprint Spectrum's PCS bands. You will note that the demands of the Union Pacific Railroad exceed even that of the Suffolk County (Long Island) Police Department, the incumbent that Sprint Spectrum was previously willing to identify.² For your convenience the attached information is summarized below.³

Microwave Incumbent	# of Links	Est. Fair Cost	Requested Cost	Extortion Delta
Union Oil of California	5	\$1,250,000	\$18,350,982	\$ 17,100,982
Union Pacific Railroad	24	6,000,000	46,250,000	40,250,000
Puget Power	12	3,000,000	7,600,000	4,600,000
Williams Wireless	7	1,750,000	21,380,000	19,630,000
Washington State Patrol	10	2,500,000	2,866,617	366,617
Western Resources	2	500,000	820,136	320,136
BNSF	1	250,000	2,000,000	1,750,000
Guadeloupe Valley Elect. Co-op	2	500,000	1,304,416	804,416
New Jersey Turnpike Authority	4	1,000,000	2,500,000	1,500,000
Detroit Edison	2	500,000	950,400	450,400
Suffolk County Police	2	500,000	22,000,000	21,500,000
Total	71	\$17,750,000	\$126,022,551	\$108,272,551

Per link excess charge:.....\$1,524,965

¹ Sprint Spectrum is licensed to serve the following MTA markets: New York, NY; San Francisco-Oakland-San Jose, CA; Detroit, MI; Dallas-Fort Worth, TX; Boston, MA-Providence, RI; Minneapolis-St. Paul, MN; Miami-Fort Lauderdale, FL; New Orleans-Baton Rouge, LA; St. Louis, MO; Milwaukee, WI; Pittsburgh, PA; Denver, CO; Seattle, WA (excluding Alaska); Louisville-Lexington-Evansville, KY; Phoenix, AZ; Birmingham, AL; Portland, OR; Indianapolis, IN; Des Moines-Quad Cities, IA; San Antonio, TX; Kansas City, KS; Buffalo-Rochester, NY; Salt Lake City, UT; Oklahoma City, OK; Spokane, WA-Billings, MT; Nashville, TN; Wichita, KS; and Tulsa, OK. Its affiliate, American Personal Communications, trading under the Sprint Spectrum brand, serves the Washington, DC-Baltimore, MD MTA.

² See Comments of CTIA in this proceeding, filed December 1, 1995, Exhibit I, at 1.

³ Unlike the attached detailed information from Sprint Spectrum, CTIA has assumed an "estimated fair value" for the maximum per link amount contained in the Commission's

Chairman Hundt
March 1, 1996
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The \$108 million difference between the estimated fair relocation cost and the sums demanded by the incumbents for these 71 links is clearly unreasonable and, CTIA believes, clear evidence of bad faith on the part of the incumbents. Of course these numbers provide only a partial picture of the kind of abuse PCS providers must confront.

The magnitude of this problem can be illustrated another way. If the average per link excess charge (\$1,524,965) is extrapolated to the C block PCS band, where approximately 1,874 microwave links are found, the amount demanded above the fair estimated relocation cost would come to more than **\$2.8 billion**.⁴ Extrapolating the overage (\$1,524,965) to the D, E, and F PCS bands, where as many as 2,951 microwave links may require relocation, the amount demanded above the fair estimated relocation cost would come to more than **\$4.5 billion**.⁵

These incumbents know that they can take advantage of the Commission's current voluntary negotiation rules by refusing to bargain in earnest or by making financial demands having no relation to the actual costs of relocation. Mr. Chairman, enough is enough! We have previously submitted information which has been "sanitized" to prevent retribution. This instance is merely illustrative and, fortunately, Sprint Spectrum has been willing to "go public."

This behavior is not what the Commission envisioned when it adopted the current rules. Sprint Spectrum has invested more than \$2 billion in the auction alone and will spend untold millions more to build out its markets. How much more will be added to the price tag by the incumbents? How much more must PCS providers "invest" to meet the greedy demands of microwave incumbents when these funds might be used to innovative services to the public?

The Commission must act with dispatch to change the microwave relocation rules to eliminate this kind of irresponsible behavior by parties holding a public trust, *i.e.*, their FCC license. The rules must be changed if the American public is to enjoy the benefits of new wireless competition. CTIA urges the Commission to, post-haste, make the following changes in the microwave relocation rules:

1. Shorten the voluntary negotiation period to one year.

⁴ $\$1,524,965 \times 1,874 = \$2,857,785,000$.

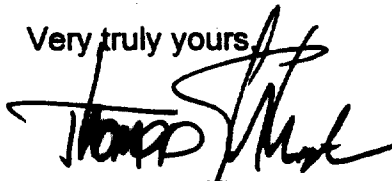
⁵ $\$1,524,965 \times 2,951 = \$4,500,173,211$. Because the D,E and F licensees will have only ten megahertz to work with, a higher percentage of the resident microwave links may have to be relocated to initiate service.

Chairman Hundt
March 1, 1996
Page Four

2. Require "good faith" negotiation during the voluntary period. As an element in the determination of an incumbent's good faith, the incumbent should be required to provide a reasonable justification of its financial and technical demands.
3. To encourage incumbents to negotiate during the voluntary period, recoverable costs during the mandatory negotiation period should be limited to the undepreciated cost of the incumbent licensee's existing system.
4. A determination of an incumbent's failure to negotiate in good faith during the voluntary period should immediately invoke the commencement of the mandatory negotiation period and the incumbent's license should be immediately downgraded to secondary status.

While most microwave incumbents are behaving responsibly, the Commission must eliminate the ability of a few mercenary incumbents to thwart nationwide PCS in its infancy.

Very truly yours,

A handwritten signature in black ink, appearing to read "Thomas E. Wheeler", written over the typed name.

Thomas E. Wheeler

cc: Commissioner James H. Quello
Commissioner Andrew C. Barrett
Commissioner Rachelle B. Chong
Commissioner Susan Ness
Michele Farquhar
Rosalind Allen

Microwave Relocation - Bad Actor Form

2/23/96

Incumbent Name: **Union Oil of Californial (Unocal)**

Market / MTA: **San Francisco, LA**

Market freq. block: **A**

Number of paths required for initial system: **5**
Estimated comparable cost per path: **\$155,000**
Total estimated comparable cost: **\$775,000**

Number of paths requested by incumbent for relo: **27**
A paths: **14**
B paths: **7**
C - F paths: **3**
Non PCS paths: **3**
Per path cost requested by the incumbent: **\$679,666**
Additional payments requested by the incumbent:
Total requested relocation cost by the incumbent: **\$18,350,982**

Chain of events:

<u>Date</u>	<u>Action</u>
8/15/95	Keller and Heckman announced their legal services for the Union Oil Company of California and requested joint development of a comprehensive relocation plan.
10/17/95	PCS licensees STV, Cox and PBMS presented a joint proposal for systemic relocation at \$154K/path covering a digital relocation.
12/15/95	The VP of Union Oil responded to PBMS, Cox and STV requesting \$18,000,000 (\$600,000/path).
1/15/96	STV, Cox and PBMS sent an offer of \$200,000/path for 27 paths to the incumbent.
2/19/96	A meeting between senior executives in PBMS and Union Oil was cancelled.
2/23/96	The incumbent has not responded to the latest proposal from the three licensees.

Additional Comments:

Union Oil has paths that are critical for San Francisco [REDACTED]
PBMS is willing to pick up many of the paths but the incumbent hasn't begun to reach reasonable terms.

**Presentation To
"UNOCAL"**

October 17, 1995

**Columbia Spectrum
Cox Communication
Pacific Bell Mobile Services**

Goals and Objectives

- Relocate your Microwave links out of the 1.9 GHz Band which have potential for interference with PCS Emerging Technology.
- Existing System in highly reliable and critical to Unocal's operation.
- Path Description (see Attachment "A")

Interference Analysis

- Interference analysis has been conducted in accordance with the Telecommunications Industry Association (TIA) Bulletin 10F. This bulletin establishes interference criteria for the deployment of PSC Spectrum systems. The analysis indicated that interference from our system would significantly reduce throughput of your baseband traffic. The FCC is aware that we will cause some interference. We are mandated to negotiate with all incumbents to eliminate the interference. In the case of Unocal, we will impact approximately one-fourth of the traffic carried by your system on the Links which have interference.

Relocation Management

- Letter from Vendor addressing Product Support

Benefits

- Voluntary time is approaching expiration.
- PSC Licenses are requesting new guide lines from FCC and Congress. The new guide lines shorten the voluntary interval and in the mandatory period the link values will go from the replacement value to a depreciated value.
- Tax Certification
- Potential for PCS Partnership upon completion of Relocation.

Cost Analysis - (Like for Like Upgrades)

	<u>Analog (K)</u>	<u>Digital (K)</u>
• Radio (Link)	77.8	82.0
• Antenna	9.9	9.9
• Wave Guide	5.0	5.0
• Dehydrators	1.9	1.9
• Nuts & Bolts/Rack	3.4	3.4
• Installation	52.0	52.0
• Replacement Cost*	<u>\$150.0K</u>	<u>\$154.2K</u>

- Link Cost \times # of Links / Total Links = Value per Link

- $\{150K \times 24 \text{ Links with interference} = 3.6M\}$

- $\{3.6M \div 27\} = 133.3K \text{ Avg. Value per Link}$

"UNOCAL"

<i>Link Description</i>									
Link	Xmt. Freq.	Site Name	Receive Site	Block	Link	Xmt. Freq.	Site Name	Receive Site	Block
1	1885.0	Santa Maria Refn.	Cuesta Grade	BE	1	1885.1	Cuesta Grade	Santa Maria Refn.	C
2	1875.0	West Mountain	Santa Paula	B	2	1815.1	Santa Paula	West Mountain	U
3	1885.0	Bakersfield	McKilrick Summit	BE	3	1885.1	McKilrick Summit	Bakersfield	BE
4	1875.0	Coalinga Pump	Joaquin Ridge	B	4	1815.1	Joaquin Ridge	Coalinga Pump	U
5	1915.0	Dominguez Hills	L. A. Terminal	U	5	1855.1	L. A. Terminal	Dominguez Hills	B
6	1905.0	Richmond Terminal	San Fran. CCC	C	6	1865.1	San Fran. CCC	Richmond Terminal	BE
7	1885.0	Union Island	Mount Vaca	BE	7	1945.0	Mount Vaca	Union Island	A,D
8	1875.0	Brea S&T	Stearns	B	8	1835.0	Stearns	Brea S&T	A
9	1885.0	Union Island	Mount Oso	BE	9	1885.0	Mount Oso	Union Island	A
10	1855.0	Santa Maria Refn.	Orcutt Hill	A	10	1835.0	Orcutt Hill	Santa Maria Refn.	A
11	1855.0	Cuesta Grade	San Luis Obispo	A	11	1905.0	San Luis Obispo	Cuesta Grade	C
12	1855.0	Frazier Mountain	Santa Ynez	A	12	1905.0	Santa Ynez	Frazier Mountain	C
13	1865.0	L. A. Refinery	Dominguez Hills	A,D	13	1905.1	Dominguez Hills	L.A. Refinery	C
14	1865.0	Torrey Hill	Santa Paula	A,D	14	1975.1	Santa Paula	Torrey Hill	C,F
15	1855.0	Torrey Hill	Oat Mountain	A	15	1895.1	Oat Mountain	Torrey Hill	C,F
16	1945.0	UOC	Oat Mountain	A,D	16	1985.0	Oat Mountain	UOC	C
17	1945.0	Frazier Mountain	Oat Mountain	A,D	17	1985.0	Oat Mountain	Frazier Mountain	C
18	1895.0	Santa Ynez	Orcutt Hill	C,F	18	1945.1	Orcutt Hill	Santa Ynez	A,D
19	1865.0	Santa Fe Springs	Stearns	A,D	19	1945.1	Stearns	Santa Fe Springs	A,D
20	1865.0	Orcutt Office	Orcutt Hill	A,D	20	1825.1	Orcutt Hills	Orcutt Office	U
21	1945.0	West Mountain	Ventura	A,D	21	1985.1	Ventura	West Mountain	C
22	1855.0	McKilrick Summit	Joaquin Ridge	A	22	1935.0	Joaquin Ridge	McKilrick Summit	A
23	1865.0	Panoche	Joaquin Ridge	A,D	23	1905.1	Joaquin Ridge	Panoche	C
24	1855.0	Panoche	Mount Oso	A	24	1945.0	Mount Oso	Panoche	A,D
25	1895.0	Frazier mt.	McKilrick Summit	C,F	25	1975.1	McKilrick Summit	Frazier Mt.	C,F
26	1925.0	San Fran. Refinery	Richmond Terminal	U	26	1985.1	Richmond Terminal	San Fran. Refinery	C
27	1925.0	Dominguez Hills	Santa Fe Springs	U	27	1975.1	Santa Fe Springs	Dominguez Hills	C,F

Calend.

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[illegible][illegible]

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 THOMAS C. STEARNS
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 JOHN P. PUGH
 ALFRED E. ROSEN V. I.
 JAMES H. A. STEARNS
 JOHN ROSENBERG
 ROBERT W. KATZMAN

NOT ADMITTED IN D.C.
 RESIDENT BRUSSELS

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THOMAS C. BROWN
MICHAEL T. FLOOD, Ph. D.

WRITERS DIRECT DIAL NUMBER

(202) 434-413

**Re: Union Oil Company of California,
Private Operational-Fixed
Microwave Service
Facilities Authorized in the
Frequency Band 1850-1990 MHz**

This firm has been retained by Union Oil Company of California (Union) to represent it in negotiations with Federal Communications Commission licensees who have secured or will be securing authorization for the provision of Personal Communications Services (PCS) in the frequency band 1850-1990 MHz (2 GHz).

Union operates an extensive private microwave system, employing assignments from the band 1850-1990 MHz, that extends from Union's Los Angeles Refinery in the south to Mt. Vaca and its San Francisco Refinery in the San Francisco Bay Area. Many of the links in this system are in the A Block awarded to Cox Cable Communications Inc. and in the B Block won by Pacific Bell Mobile Services (PacBell) in the PCS auction. A few links are in the San Francisco A Block won by your client, WirelessCo. Inasmuch as it appears that it will not be possible in many instances for Union to share use of this spectrum with these PCS licensees, we have been instructed by our client to pursue an agreement for Union's exit from the band during the voluntary negotiating period that commenced on April 5, 1995.

Union is desirous of exploring with representatives of WirelessCo, Cox, and PacBall, jointly, the development of a comprehensive agreement for its relinquishment of authority to

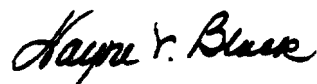
Mr. Thomas Lusk
August 15, 1995
Page Two

KELLER AND HECKMAN

employ its current 2 GHz assignments. A letter similar to this is being directed to Mr. Roger Downes at Cox, and to Mr. Mike Patrick at Pacific Bell Mobile Services, with an invitation to meet jointly if each is desirous of pursuing this goal.

I look forward to your early response.

Very truly yours,

A handwritten signature in cursive script, reading "Wayne V. Black".

Wayne V. Black

Microwave Relocation - Bad Actor Form

2/23/96

Incumbent Name: **Union Pacific Railroad**
(Missouri Pacific & Chicago NW Railway)

Market / MTA: Seattle, Portland, San Francisco
Spokane, Salt Lake City, Minneapolis
Kansas City, Omaha, St. Louis, Tulsa
Des Moines, Denver, Dallas
New Orleans, San Antonio

Market freq. block: A - B

Number of paths required for initial system: 24
Estimated comparable cost per path: \$165,000
Total estimated comparable cost: \$3,960,000

Number of paths requested by incumbent for relo: 185
A paths: 54
B paths: 55
C - F paths: 76
Non PCS paths: 0
Per path cost requested by the incumbent: \$250,000
Additional payments requested by the incumbent:
Total requested relocation cost by the incumbent: \$46,250,000

Chain of events:

<u>Date</u>	<u>Action</u>
10/26/95	STV met with UP to initially discuss microwave relocation and site leasing.
11/1/95	STV worked with UP to obtain a letter permitting coordination among other PCS licensees.
12/14/95	STV proposed to pay for all 55 STV Co-Channel paths and a pro-rata share of 76 BTA-block paths.
1/5/96	STV/CSM coordinated a meeting with UP and PCS licensees.
1/16/96	UP refused to attend, along with many of the other licensees.
2/9/96	UP has not responded with any comments or requests to STV's December 14, 1995 proposal.
2/9/96	STV is preparing an alternate proposal to meet launch objectives.

Additional Comments:

- Beyond initial launch, UP impacts PCS coverage in 15 MTA's.

D-R-A-F-T

Mr. Kenneth P. Cashman
Sprint Telecommunications Venture
9221 Ward Parkway
Kansas City, MO 64131

November 30, 1995

Dear Ken:

SUBJECT: Microwave System Relocation

As you are aware, Union Pacific Railroad ("Union Pacific") currently operates a large microwave system across several major trading areas ("MTA's") in multiple frequency bands, including the 1850 - 1990 MHz radio band (the "2 GHz Band"). As a result of the orders of the Federal Communications Commission, a great number of paths in the system may be subject to interference protection and relocation to alternate frequencies or media. Furthermore, the responsibility for non-interference and relocation rests with multiple PCS licensees, including affiliates of Sprint Telecommunications Venture ("STV").

Significant benefits may be achieved if the PCS licensees work together to effect a non-interference and relocation solution for Union Pacific's 2 GHz Band paths. We recognize that such coordination among PCS licensees may be permissible for some topics but not for others. If you think that it would be appropriate, you may wish to contact other PCS licensees with respect to aspects of this issue which do not present you with significant risks of legal liability.

Sincerely yours,

G. LYNN ANDREWS
AVP Telecommunications

Sprint Telecommunications Venture
9221 Ward Parkway, Kansas City, Missouri 64114

December 14, 1995

G. Lynn Andrews
AVP Telecommunications
Union Pacific Railroad
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Omaha, NE 66179
(402) 271-2253

Dear Mr. Andrews,

In response to the meeting between Union Pacific and Sprint Telecommunications Venture (STV) on 10/26/95, STV has prepared the following proposal for microwave relocation of Union Pacific's paths from the PCS spectrum. This proposal is based upon engineering quotes obtained for a digital system upgrade with Alcatel radios of equal or greater capacity than the current system configuration. STV understands that Union Pacific desires a systemic solution, and we have prepared such a solution. STV's business plan does not support unilaterally financing a complete microwave network relocation. Our plan allows Union Pacific, and its affiliates Missouri Pacific Railroad and Chicago Northwestern Railway, to affect a systemic network relocation by apportioning the responsibility of each path in the network to one or more PCS licensees based upon the attached *PCS Licensee Relocation Responsibility* spreadsheet.

This spreadsheet details all 185 paths that Union Pacific and its affiliates have in the 1.9 GHz PCS frequency band. It assigns the percentage responsibility for each licensee, based upon the PCS provider's MTA license and the frequency block assignment (A, A/D, D/B, B, B/E, E/F, F/C, C, C/UL, UL, and UL/A). There are nine (9) PCS licensees sharing common frequencies with current Union Pacific microwave paths. These licensees include: American Portable Telecommunications (APT), AT&T Wireless PCS Inc., GTE Macro Communications Corp., Pacific Telesis Mobile Services (PBMS), Poka Lambro Telephone Cooperative, Inc., PCS PrimeCo, LP., WirelessCo, LP. (STV), Southwestern Bell Mobile Systems, Inc. (SWBMS), and Western PCS Corporation (Western Wireless).

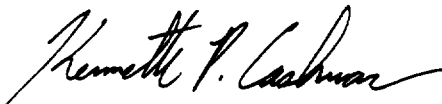
STV has made four key concessions without the benefit of any system specific information:

- Included All 55 co-channel paths (critical and non-critical)
- Added 75 BTA-Block or Unlicensed paths for systemic relocation
- Obtained special pricing for a digital system upgrade with equal or greater capacity
- Padded the baseline cost with \$20,000 per path for tower upgrades, additional expenses or premium overhead.

The average cost of Alcatel digital radios quoted for STV's special pricing of Union Pacific's paths is \$143,357. Added to this equipment cost is a \$20,000 per path provisioned for possible tower modification or other expenses Union Pacific sees fit, bringing the total baseline cost to \$163,357/path. STV has 55 co-channel paths with Union Pacific, for which STV will pay 100% of the baseline cost unless cost sharing with another licensee. STV will agree to pay 50% of the baseline cost for 75 additional BTA-Block or Unlicensed PCS paths. This allows STV to contribute to the systemic relocation requested by Union Pacific. STV looks forward to the opportunity to proceed with Union Pacific on microwave relocation efforts.

The information in this correspondence should be considered proprietary, and, not releasable outside Union Pacific, STV and CSM, until more formal agreements are in place. Please refer any questions to STV's primary negotiator Tom Leddo, with CSM at (713) 974-0414, or secondary contact Ken Cashman at (816) 276-2116.

Regards,



Kenneth P. Cashman
Microwave Relocation Engineer

enclosure: PCS Relocation Responsibility Spreadsheet

cc: Oliver Valente
Paul Jablonski
Bob Stedman
Tony Sabatino
Don Mueller
Dave Kleinbeck
Tom Leddo

PCS LICENSEE RELOCATION RESPONSIBILITY CHART
UNION PACIFIC RAILROAD 1.9 GHz Paths
(Missouri Pacific Railroad, Chicago Northwestern Railway Co.)

2/23/96

CALLSIGN 1	CALLSIGN 2	SITE NAME1	SITE NAME2	FREQ1_1	FREQ2_1	Freq1_1Bk	Freq2_1Bk	STV License	MTA 1	MTA 2	APT	AT&T	GTE	PBMS	Poka	PrimeCo	STV	SWBMS	Western Wireless
WH1973	WH1974	KIRKWOOD *	PACIFIC *	1965.0000	1885.0000	B/E	B/E	B	19	19	0%	0%	0%	0%	0%	0%	100%	0%	0%
WH1976	WH1977	AMERICUS *	HOLTS SUMMI*	1885.0000	1965.0000	B/E	B/E	B	19	19	0%	0%	0%	0%	0%	0%	100%	0%	0%
WBX388	WBX387	WOLCOTT *	NEFF YARD *	1935.0000	1855.0000	A	A	A	34	34	0%	0%	0%	0%	0%	0%	100%	0%	0%
WH1981	WH1980	MONTERRAT *	SEDALIA *	1885.0000	1945.0000	A/D	A/D	A	34	34	0%	0%	0%	0%	0%	0%	100%	0%	0%
WJK31	WJK29	PLEASANT HI*	BUTLER *	1885.0000	1935.0000	B/E	A	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
KAZ43	KAZ42	PONCA HILLS*	OMAHA *	1955.0000	1885.0000	B	B/E	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
KAZ45	KAZ46	MAPLE HILL *	BELLWOOD *	1895.0000	1955.0000	F/C	B	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
KAZ47	KAZ46	GENOA *	BELLWOOD *	1875.0000	1935.0000	B	A	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KAZ48	KAZ49	CENTRAL CIT*	GRAND ISLAN*	1895.0000	1955.0000	F/C	B	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
KAZ49	WSP88	GRAND ISLAN*	HANSEN *	1925.0000	1875.0000	UL	B	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
KBA35	KBA34	NORTH PLATT*	BRADY *	1855.0000	1965.0000	A	B/E	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KBA39	KBA38	CHAPPELL *	JULESBURG *	1885.0000	1865.0000	B/E	B/E	B/A	45	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KTM64	KBA33	GOTHENBURG *	JOHNSON *	1985.0000	1905.0000	B/E	C	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG305	WEG306	SUTHERLAND *	OGALLALA *	1955.0000	1875.0000	B	B	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
WSP91	WSP92	DAVENPORT *	BELVIDERE *	1955.0000	1875.0000	B	B	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
WSP93	WSP94	DAYKIN *	FAIRBURY *	1965.0000	1885.0000	B/E	B/E	B	45	45	0%	0%	0%	0%	0%	0%	100%	0%	0%
WSP95	KTM76	STEEL CITY *	MARYSVILLE *	1955.0000	1875.0000	B	B	B/A	45	34	0%	50%	0%	0%	0%	0%	50%	0%	0%
WJZ48	WJZ54	BUNKIE *	MELVILLE *	1935.0000	1855.0000	A	A	A	17	17	0%	0%	0%	0%	0%	0%	100%	0%	0%
WJZ53	WJZ49	LIVONIA *	ADDIS *	1935.0000	1855.0000	A	A	A	17	17	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEH257	WJK31	LEE'S SUMMI*	PLEASANT HL*	1975.0000	1895.0000	F/C	F/C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
WJK26	WJK28	KINCAID *	YATES CENTE*	1935.0000	1855.0000	A	A	A/B	34	46	0%	50%	0%	0%	0%	0%	50%	0%	0%
KTM83	KAU45	UP OFFICE *	AGRENTINE *	1895.0000	1975.0000	F/C	F/C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
KBA31	KBA32	GIBBON *	ALFALFA CNT*	1895.0000	1875.0000	F/C	F/C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KBA36	KBA35	SUTHERLAND *	NORTH PLATT*	1985.0000	1895.0000	C	F/C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KBA37	KBA38	OGALLALA *	JULESBURG *	1865.0000	1945.0000	A/D	A/D	B/A	45	22	0%	60%	0%	0%	0%	0%	50%	0%	0%
WEG307	WEG308	LEMOYNE *	OGALLALA *	1975.0000	1895.0000	F/C	F/C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
WNEP921	WH1758	WASECA	CLARKS GROV	1945.0000	1865.0000	A/D	A/D	A	12	12	0%	0%	0%	0%	0%	0%	100%	0%	0%
KSB25	KIC58	WALKER	CEDAR RAPID	1885.0000	1965.0000	B/E	B/E	B	32	32	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG984	WEG982	COVE SPRING*	PALESTINE *	1885.0000	1965.0000	B/E	B/E	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG986	WEG984	ELKHART *	CROCKETT *	1885.0000	1965.0000	B/E	B/E	B	7	14	0%	0%	0%	0%	0%	50%	50%	0%	0%
WEG980	WEG987	LONGVIEW *	SE KILGORE *	1955.0000	1875.0000	B	B	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG991	WEG990	HALLSVILLE *	LONGVIEW *	1885.0000	1965.0000	B/E	B/E	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG992	WEG986	PALESTINE *	ELKHART *	1955.0000	1875.0000	B	B	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WVK73	WEG991	SCOTTSVILLE*	HALLSVILLE *	1955.0000	1875.0000	B	B	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WKO35	WEG984	TYLER *	COVE SPRING*	1955.0000	1875.0000	B	B	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WGP48	WGP45	ODEM DEPOT *	MOPAC FRT O*	1865.0000	1965.0000	A/D	B/E	A	33	33	0%	0%	0%	0%	0%	50%	50%	0%	0%
KDB94	KGW21	OROVILLE *	SUTTER BTTE*	1945.0000	1865.0000	A/D	A/D	A	4	4	0%	0%	0%	0%	0%	0%	100%	0%	0%
WNEY901	WBU35	CORA *	GORHAM *	1965.0000	1885.0000	B/E	B/E	B	19	19	0%	0%	0%	0%	0%	0%	100%	0%	0%
KBA40	KBA39	E BROWNSON*	CHAPPELL *	1935.0000	1855.0000	A	A	A/B	22	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KBA41	WGT27	OLIVER *	PINE BLUFFS*	1935.0000	1855.0000	A	A	A	22	22	0%	0%	0%	0%	0%	0%	100%	0%	0%
KBA44	KBA43	PILOT KNOB *	CHEYENNE *	1965.0000	1865.0000	B/E	A/D	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBY35	KBR88	HANNA *	SO RAWLINS *	1865.0000	1925.0000	A/D	UL	A	22	22	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG308	WEG307	OSHKOSH *	LEMOYNE *	1865.0000	1945.0000	A/D	A/D	A/B	22	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
WEG311	WEG310	MELBETA *	NORTHPORT *	1945.0000	1865.0000	A/D	A/D	A	22	22	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG312	WEG311	SCOTTSBLUFF*	MELBETA *	1855.0000	1935.0000	A	A	A	22	22	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAL548	KTN45	FIFE HEIGHT*	CAPITOL PK *	1955.0000	1895.0000	B	F/C	B	24	24	0%	0%	0%	0%	0%	0%	100%	0%	0%
KPE47	WAM32	KELSO *	SKAPOOSE *	1955.0000	1875.0000	B	B	B	30	30	0%	0%	0%	0%	0%	0%	100%	0%	0%
KSN28	KSN27	ROOSEVELT *	HAYSTACK BT*	1885.0000	1965.0000	B/E	B/E	B	30	30	0%	0%	0%	0%	0%	0%	100%	0%	0%
KSN29	KSN25	MT SKAMANIA*	HOOD RIVER *	1965.0000	1885.0000	B/E	B/E	B	30	30	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAM32	WAM33	ROCKY POINT*	ALBINA YARD*	1885.0000	1965.0000	B/E	B/E	B	30	30	0%	0%	0%	0%	0%	0%	100%	0%	0%

PCS LICENSEE RELOCATION RESPONSIBILITY CHART
UNION PACIFIC RAILROAD 1.9 GHz Paths
(Missouri Pacific Railroad, Chicago Northwestern Railway Co.)

2/23/96

KBR85	KBR84	BIG MTN *	MAGNA *	1875.0000	1975.0000	B	F/C	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
KBR86	KBR84	SLC DEPOT *	MAGNA *	1885.0000	1945.0000	B/E	A/D	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KDP69	KDP70	GARLAND *	WILLARD *	1885.0000	1965.0000	B/E	B/E	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
KDP72	KDP66	TRAIL CREEK *	BONNEVL PEA *	1975.0000	1885.0000	F/C	B/E	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
KDP72	KDP71	TRAIL CREEK *	POCATELLO *	1955.0000	1855.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KVM47	KBR85	MEDICINE BT *	BIG MTN *	1965.0000	1885.0000	B/E	B/E	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAT690	WAT689	SODA SPRING *	FISH CREEK *	1885.0000	1965.0000	B/E	B/E	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAT691	WAT692	GEORGETOWN *	MONTPELIER *	1965.0000	1885.0000	B/E	B/E	B	36	36	0%	0%	0%	0%	0%	0%	100%	0%	0%
KYR40	WAV92	JOE BUTTE *	WALLA WALLA *	1955.0000	1875.0000	B	B	B	42	42	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAV95	KYR42	STEPTOE BTE *	POMEROY *	1875.0000	1955.0000	B	B	B	42	42	0%	0%	0%	0%	0%	0%	100%	0%	0%
WAV97	WAV96	SPOKANE *	MICA PEAK *	1895.0000	1955.0000	F/C	B	B	42	42	0%	0%	0%	0%	0%	0%	100%	0%	0%
WJK28	WJK24	YATES CENTER	THAYER	1885.0000	1965.0000	B/E	B/E	B/A	46	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
WIK73	WIK22	SCOTTSVILLE *	MARSHALL *	1975.0000	1895.0000	F/C	F/C	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WIK74	WIK25	MOPAC YARDS *	HALL SUMMIT *	1895.0000	1975.0000	F/C	F/C	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WIK24	WIK23	GALBRAITH S *	ALEXANDRIA *	1935.0000	1855.0000	A	A	B	7	17	0%	0%	0%	0%	0%	0%	50%	0%	0%
WIK26	WIK24	NATCHITOCHIE *	GALBRAITH S *	1895.0000	1975.0000	F/C	F/C	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WKG35	WEG987	TYLER *	SE KLGORE *	1975.0000	1895.0000	F/C	F/C	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WNEW344	WHH704	DENISON *	SHERMAN *	1975.0000	1915.0000	F/C	UL	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WNEW345	WNEW344	DURANT *	DENISON *	1905.0000	1885.0000	C	C	B	7	7	0%	0%	0%	0%	0%	0%	50%	0%	0%
WIK23	WJZ48	ALEXANDRIA *	BUNKIE *	1895.0000	1975.0000	F/C	F/C	A	17	17	0%	0%	0%	0%	0%	0%	50%	0%	0%
WJZ49	WJZ51	ADDIS *	DONALDSONV *	1895.0000	1975.0000	F/C	F/C	A	17	17	0%	0%	0%	0%	0%	0%	50%	0%	0%
WBU34	WBU35	BUSH *	GORHAM *	1885.0000	1905.0000	C	C	B	19	19	0%	50%	0%	0%	0%	0%	50%	0%	0%
WBU36	WBU34	BENTON *	BUSH *	1895.0000	1975.0000	F/C	F/C	B	19	19	0%	50%	0%	0%	0%	0%	50%	0%	0%
WH972	WH973	210 N 13TH *	KIRKWOOD *	1905.0000	1885.0000	C	C	B	19	19	0%	50%	0%	0%	0%	0%	50%	0%	0%
KYU66	KYU55	RAYMONDVILL *	HARLINGEN *	1975.0000	1885.0000	F/C	F/C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
KYU97	KYU88	NORIAS *	RAYMONDVILL *	1905.0000	1885.0000	C	C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
KYX33	KYX34	KINGSVILLE *	MIFFLIN *	1905.0000	1885.0000	C	C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
KYX34	KYV97	MIFFLIN *	NORIAS *	1975.0000	1895.0000	F/C	F/C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
KYX47	KYX33	ROBSTOWN *	KINGSVILLE *	1975.0000	1885.0000	F/C	F/C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
WGP48	KYX47	ODEM DEPOT *	ROBSTOWN *	1925.0000	1885.0000	UL	C	A	33	33	0%	0%	0%	0%	0%	0%	50%	0%	0%
WBX387	WEH258	NEFF YARD *	PACIFIC AVE *	1985.0000	1905.0000	C	C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
WEH258	WJK27	LOUISBURG *	OSAWATOMIE *	1985.0000	1905.0000	C	C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
WH979	WH977	CLARKSBURG *	HOLTS SUMMI *	1895.0000	1975.0000	F/C	F/C	A/B	34	19	25%	25%	0%	0%	0%	0%	50%	0%	0%
WJK24	WJK25	THAYER *	COFFEYVILLE *	1975.0000	1895.0000	F/C	F/C	A/B	34	48	25%	0%	0%	0%	0%	0%	50%	25%	0%
WJK31	WH982	PLEASANT HL *	KINGSVILLE *	1905.0000	1885.0000	C	C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
KBA40	KTR84	E BROWNSON *	SIDNEY *	1985.0000	1905.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBA41	WGT48	OLIVER *	JACINTO *	1975.0000	1895.0000	F/C	F/C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBA43	KBA42	CHEYENNE *	CAMPSTOOL *	1905.0000	1885.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBA45	KBA44	LARAMIE *	PILOT KNOB *	1905.0000	1885.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBY29	KBY28	BITTER CRK *	ROCK SPRING *	1885.0000	1905.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBY31	KBY29	CRESTON *	BITTER CRK *	1895.0000	1975.0000	F/C	F/C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KBY34	KBY30	S GREEN RVR *	CHURCH BTE *	1975.0000	1895.0000	F/C	F/C	A	22	38	0%	0%	25%	0%	0%	0%	50%	0%	25%
KTR83	KBA38	JULESBURG *	JULESBURG *	1905.0000	1885.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
KTR85	KBR88	RAWLINS *	SO RAWLINS *	1905.0000	1885.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WAY90	KBY34	COMMUN OFC *	S GREEN RVR *	1905.0000	1885.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WBG33	KBY38	ROCK RIVER *	HARPER *	1985.0000	1905.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WED589	WED590P	KEMMERER *	OYSTER RG P *	1895.0000	1975.0000	F/C	F/C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WEG309	WEG308	LISCO *	OSHKOSH *	1985.0000	1905.0000	C	C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WEG310	WEG309	NORTHPORT *	LISCO *	1895.0000	1975.0000	F/C	F/C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WEG312	WEG313	SCOTTSBLUFF *	SO MORRILL *	1895.0000	1975.0000	F/C	F/C	A	22	22	0%	0%	50%	0%	0%	0%	50%	0%	0%
WAL549	WAL548	MCMICKEN HE *	FIFE HEIGHT *	1915.0000	1975.0000	UL	F/C	B	24	24	0%	0%	50%	0%	0%	0%	50%	0%	0%
KSN27	KDP81	HAYSTACK BT *	THE DALLES *	1885.0000	1905.0000	C	C	B	30	30	0%	0%	0%	0%	0%	0%	50%	0%	50%

PCS LICENSEE RELOCATION RESPONSIBILITY CHART
UNION PACIFIC RAILROAD 1.9 GHz Paths
(Missouri Pacific Railroad, Chicago Northwestern Railway Co.)

2/23/98

KTM65	KTM66	LINN *	MILTONVALE *	1985.0000	1905.0000	C	C	A	34	46	25%	25%	0%	0%	0%	0%	50%	0%	0%
KTM76	KTM65	MARYSVILLE *	LINN *	1985.0000	1975.0000	F/C	F/C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
KTM77	KTM76	MARYSVL DEP*	MARYSVILLE *	1985.0000	1905.0000	C	C	A	34	34	50%	0%	0%	0%	0%	0%	50%	0%	0%
KDP70	WAV91	WILLARD *	OGDEN *	1985.0000	1905.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KDP74	WCE331	KIMAMA BTTE*	5TH & SCOTT*	1905.0000	1985.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KDP84	KDP78	SQUAW BUTTE*	NAMPA *	1985.0000	1905.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KVM47	WGT45	MEDICINE BT*	EVANSTON *	1985.0000	1905.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
WAT688	KDP67	MCCAMMON *	ELKHORN *	1985.0000	1985.0000	F/C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
WAT692	WED590	MONTPELIER *	LAKETOWN *	1905.0000	1985.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
WBF62	WBF61	MENAN BUTTE*	IDAHO FALLS*	1905.0000	1985.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
WBU980	WBF62	MONIDA *	MENAN BUTTE*	1985.0000	1905.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
WED590	WED589P	LAKETOWN *	OYSTER RG P*	1975.0000	1895.0000	F/C	F/C	B	36	22	0%	0%	25%	0%	0%	0%	50%	0%	25%
WAZ227	KDP74	SHOSHONE *	KIMAMA BTTE*	1985.0000	1905.0000	C	C	B	36	36	0%	0%	0%	0%	0%	0%	50%	0%	50%
KSN24	KSN28	HINKLE *	ROOSEVELT *	1905.0000	1985.0000	C	C	B	42	30	0%	0%	0%	0%	25%	0%	50%	0%	25%
KYR41	KYR40	ALTO *	JOE BUTTE *	1905.0000	1985.0000	C	C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
KZF70	KYR42	STOUT RANCH*	POMERoy *	1985.0000	1975.0000	F/C	F/C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
WAV96	WAV95	MICA PEAK *	STEPTOE BTE*	1985.0000	1905.0000	C	C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
WBU981	WBU980	RED ROCK *	MONIDA *	1985.0000	1975.0000	F/C	F/C	B	42	36	0%	0%	0%	0%	25%	0%	50%	0%	25%
WBU982	WBU981	DILLON *	RED ROCK *	1985.0000	1905.0000	C	C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
WBU983	WBU982	FEELY SIDIN*	DILLON *	1985.0000	1975.0000	F/C	F/C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
WBU984	WBU983	SILVER BOW*	FEELY SIDIN*	1985.0000	1905.0000	C	C	B	42	42	0%	0%	0%	0%	50%	0%	50%	0%	0%
KAZ43	KAZ44	PONCA HILLS*	ELK CITY *	1985.0000	1905.0000	C	C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KAZ47	KAZ48	GENOA *	CENTRAL CIT*	1985.0000	1905.0000	C	C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KBA32	KBA33	ALFLAFA CNT*	JOHNSON *	1985.0000	1925.0000	C	UL	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
WAW949	KAZ46	12TH STREET*	BELLWOOD *	1905.0000	1985.0000	C	C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
WDQ33	KHY23	OMAHA *	GLENWOOD *	1905.0000	1985.0000	C	C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
WSP90	WSP91	FAIRFIELD *	DAVENPORT *	1905.0000	1985.0000	C	C	B	45	45	0%	50%	0%	0%	0%	0%	50%	0%	0%
KTM66	KTM67	MILTONVALE *	NEW CAMBRIA*	1985.0000	1975.0000	F/C	F/C	B	46	46	0%	50%	0%	0%	0%	0%	50%	0%	0%
KTM67	KTM68	NEW CAMBRIA*	SALINA *	1985.0000	1905.0000	C	C	B	46	46	0%	50%	0%	0%	0%	0%	50%	0%	0%
WNE5849	KYT55	CNW DEPOT	MILLER RD	1945.0000	1885.0000	A/D	A/D	N/A	3	3	0%	100%	0%	0%	0%	0%	0%	0%	0%
KIC58	KIB70	CEDAR RAPID	EDGEWOOD RD	1945.0000	1885.0000	A/D	A/D	B	32	32	0%	0%	0%	0%	0%	0%	0%	0%	100%
WIK73	WIK74	SCOTTSVILLE*	MOPAC YARDS*	1935.0000	1855.0000	A	A	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WQ25	WQ26	HALL SUMMIT*	NATCHITOCHÉ*	1935.0000	1855.0000	A	A	B	7	7	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG985	WEG988	TRINITY *	PHELPS *	1885.0000	1985.0000	B/E	B/E	N/A	14	14	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG988	WEG993	PHELPS *	WALKER *	1955.0000	N/A	B	Invalid	N/A	14	14	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEG988	WEH321	PHELPS *	NEW WAVERLY*	1975.0000	1895.0000	F/C	F/C	N/A	14	14	50%	0%	0%	0%	0%	0%	50%	0%	0%
WEG994	WEG985	CROCKETT *	TRINITY *	1975.0000	1895.0000	F/C	F/C	N/A	14	14	50%	0%	0%	0%	0%	0%	50%	0%	0%
WEH320	WEH322	CONROE *	SPRING STN *	1985.0000	1885.0000	B/E	B/E	N/A	14	14	0%	0%	0%	0%	0%	0%	100%	0%	0%
WEH321	WEH320	NEW WAVERLY*	CONROE *	1985.0000	1945.0000	A/D	A/D	N/A	14	14	100%	0%	0%	0%	0%	0%	0%	0%	0%
WEH322	WEG989	SPRING STN *	SPRING *	1855.0000	1935.0000	A	A	N/A	14	14	100%	0%	0%	0%	0%	0%	0%	0%	0%
WJZ51	WJZ52	DONALDSONVL*	EDGARD *	1965.0000	1885.0000	B/E	B/E	A	17	17	0%	0%	0%	0%	0%	0%	100%	0%	0%
WJZ52	WJZ50	EDGARD *	BRIDGE CITY*	1895.0000	1955.0000	F/C	B	A	17	17	0%	0%	0%	0%	0%	0%	100%	0%	0%
WJZ54	WJZ53	MELVILLE *	LIVONIA *	1885.0000	1975.0000	B/E	F/C	A	17	17	0%	0%	0%	0%	0%	0%	100%	0%	0%
WH975	WH974	WARRENTON *	PACIFIC *	1945.0000	1885.0000	A/D	A/D	B	19	19	0%	100%	0%	0%	0%	0%	0%	0%	0%
WH976	WH975	AMERICUS *	WARRENTON *	1855.0000	1935.0000	A	A	B	19	19	0%	100%	0%	0%	0%	0%	0%	0%	0%
WNEY900	WNEY901	CHESTER *	CORA *	1855.0000	1935.0000	A	A	B	19	19	0%	100%	0%	0%	0%	0%	0%	0%	0%
WNEY903	WNEY902	DEXTER *	POPLAR *	1855.0000	1935.0000	A	A	B	19	19	0%	100%	0%	0%	0%	0%	0%	0%	0%
WNTR350	WH972	LUTHER YARD*	210 N 13TH *	1945.0000	1885.0000	A/D	A/D	B	19	19	0%	100%	0%	0%	0%	0%	0%	0%	0%
WEH256	WEH257	PACIFIC AVE*	LEE'S SUMMI*	1875.0000	1955.0000	B	B	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%
WH980	WH979	SEDALIA *	CLARKSBURG *	1955.0000	1875.0000	B	B	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%
WH981	WH982	MONTERRAT *	KINGSVILLE *	1885.0000	1965.0000	B/E	B/E	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%
WJK27	WJK26	OSAWATOMIE *	KINCAID *	1885.0000	1965.0000	B/E	B/E	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%

PCS LICENSEE RELOCATION RESPONSIBILITY CHART
UNION PACIFIC RAILROAD 1.9 GHz Paths
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2/23/96

WJK29	WJK30	BUTLER *	NEVADA *	1985.0000	1915.0000	B/E	UL	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%
WJK31	WEH258	PLEASANT HL *	LOUISBURG *	1875.0000	1955.0000	B	B	A	34	34	100%	0%	0%	0%	0%	0%	0%	0%	0%
KGW20P	KGW22	QUINCY PR *	CLAREMONT *	1885.0000	1985.0000	B/E	B/E	A	4	4	0%	0%	0%	100%	0%	0%	0%	0%	0%
KGW22P	KGW20	QUINCY PR *	W PACIFIC *	1965.0000	1885.0000	B/E	B/E	A	4	4	0%	0%	0%	100%	0%	0%	0%	0%	0%
KBR88	KBY31	SO RAWLINS *	CRESTON *	1955.0000	1875.0000	B	B	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
KBY28	KBY34	ROCK SPRING*	S GREEN RVR*	1875.0000	1955.0000	B	B	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
KBY35	KBY36	HANNA *	HARPER *	1985.0000	1885.0000	B/E	B/E	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
KBY36	KBA44	HARPER *	PILOT KNOB *	1875.0000	1955.0000	B	B	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
WGT27	KBA42	PINE BLUFFS*	CAMPSTOOL *	1875.0000	1955.0000	B	B	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
WGT46	KBA40	JACINTO *	E BROWNSON *	1875.0000	1955.0000	B	B	A	22	22	0%	0%	100%	0%	0%	0%	0%	0%	0%
KTN45	KPE47	CAPITOL PK *	KELSO *	1885.0000	1945.0000	A/D	A/D	B	24	30	0%	0%	50%	0%	0%	0%	0%	0%	50%
KSN25	KSN27	HOOD RIVER *	HAYSTACK BT*	1885.0000	1945.0000	A/D	A/D	B	30	30	0%	0%	0%	0%	0%	0%	0%	0%	100%
KBY30	KVM47	CHURCH BUTT*	MEDICINE BT*	1855.0000	1925.0000	A	UL	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
KDP66	KDP67	BONNEVL PEA*	ELKHORN *	1885.0000	1925.0000	A/D	UL	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
KDP67	KDP69	ELKHORN *	GARLAND *	1935.0000	1855.0000	A	A	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
WAT688	WAT689	MCCAMMON *	FISH CREEK *	1885.0000	1945.0000	A/D	A/D	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
WAT690	WAT691	SODA SPRING*	GEORGETOWN *	1885.0000	1945.0000	A/D	A/D	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
WBF62	KDP72	MENAN BUTTE*	TRAIL CREEK*	1885.0000	1945.0000	A/D	A/D	B	36	36	0%	0%	0%	0%	0%	0%	0%	0%	100%
KYR40	KSN24	JOE BUTTE *	HINKLE *	1945.0000	1885.0000	A/D	A/D	B	42	42	0%	0%	0%	0%	100%	0%	0%	0%	0%
KYR41	KYR42	ALTO *	POMEROY *	1855.0000	1935.0000	A	A	B	42	42	0%	0%	0%	0%	100%	0%	0%	0%	0%
KZF70	KYR43P	STOUT RANCH*	STOUT RCH P*	1855.0000	1935.0000	A	A	B	42	42	0%	0%	0%	0%	100%	0%	0%	0%	0%
KZF70P	KYR43	STOUT RCH P*	325 MILL RD*	1855.0000	1935.0000	A	A	B	42	42	0%	0%	0%	0%	100%	0%	0%	0%	0%
KAZ45	KAZ44	MAPLE HILL *	ELK CITY *	1925.0000	1885.0000	UL	A/D	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
KAZ49	KBA31	GRAND ISLAN*	GIBBON *	1945.0000	1865.0000	A/D	A/D	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
KBA34	KTM64	BRADY *	GOTHENBURG *	1925.0000	1865.0000	UL	A/D	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
KBA36	KBA37	SUTHERLAND *	OGALLALA *	1935.0000	1855.0000	A	A	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
WEG305	WEG304	SUTHERLAND *	NORTH PLATT *	1945.0000	1865.0000	A/D	A/D	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
WSP88	WSP89	HANSEN *	HASTINGS *	1885.0000	1935.0000	A	A	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
WSP89	WSP90	HASTINGS *	FAIRFIELD *	1945.0000	1865.0000	A/D	A/D	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
WSP92	WSP93	BELVIDERE *	DAYKIN *	1855.0000	1935.0000	A	A	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%
WSP94	WSP95	FAIRBURY *	STEEL CITY *	1855.0000	1935.0000	A	A	B	45	45	0%	100%	0%	0%	0%	0%	0%	0%	0%

Microwave Relocation - Bad Actor Form

2/26/96

Incumbent Name: **Puget Power**

Market / MTA: **Seattle / MTA 24**

Market freq. block: **B**

Number of paths required for initial system: 12
Estimated comparable cost per path: \$190,000
Total estimated comparable cost: \$2,280,000

Number of paths requested by incumbent for relo: 12
A paths: 2
B paths: 7
C - F path: 3
Non PCS paths: 0
Per path cost requested by the incumbent: \$300,000
Additional payments requested by the incumbent: \$4,000,000
Total requested relocation cost by the incumbent: \$7,600,000

Chain of events:

<u>Date</u>	<u>Action</u>
2/7/96	STV made a joint offer with GTE to pay Puget Power a total of \$2,200,000 in cash to remove all twelve paths.
2/23/96	Puget Power made a counter offer stating STV/GTE pay \$4,000,000 in addition to a turnkey relocation for ten paths. Puget Power would turn off two paths and STV/GTE would provide a digital upgrade including channel banks for the remaining ten.

Additional Comments:



13635 N.E. 80th Street
Redmond, WA 98052

February 23, 1996

Mr. Dee Alipanah
Vice President
VCI
1110 N. Globe Road, Suite 850
Arlington, VA 22201

RE: Puget Sound Power and Light Company 2 GHz Relocation

Dear Mr. Alipanah:

This letter presents a counter-offer to the offer that you presented to Puget Sound Power and Light Company ("Puget Power") on February 7, 1996.

General:

This letter reflects our mutual understanding that Puget Power will vacate the twelve (12) microwave paths currently operating in the PCS A, B, and C block frequencies listed below. In return, Sprint Telecommunications Venture ("STV") and GTE MobilNet ("GTE") shall (1) pay Puget Power a total of Four Million Dollars, U.S. (\$4,000,000.00, U.S.) in cash, and (2) provide turnkey installations for a system currently including ten (10) microwave paths as detailed in Section 3 below, and the parties hereto intending to be bound, agree as follows.

Description:

This agreement will allow for the relocation and/or decommissioning of the following microwave paths currently licensed to Puget Power:

Path #	FCC Call Sign 1	Freq. (MHz)	FCC Call Sign 2	Freq. (MHz)
1	KEY31 White River	1940	KYP29 Covington	1860
2	WDC47 Oak Harbor	1865	WNER541 Mt. Eric	1945
3	KPD79 Upper Baker	1945	KPD80 Lower Baker	1865
4	KOW42 ESO	1955	KOW41 Cougar Mtn	1855
5	WNER541 Mt. Eric	1955	WNEK417 Lookout Mtn	1855

Path #	FCC Call Sign 1	Freq. (MHz)	FCC Call Sign 2	Freq. (MHz)
6	WNEK417 Lookout Mtn	1955	WNEK418 Bellingham	1855
7	WNEH712 Talbot Hill	1885	WNEF853 Bellevue	1965
8	WEF234 Yelm	1960	KRN47 Electron	1880
9	WNER541 Mt. Erie	1965	KPD80 Lower Baker	1885
10	WNER541 Mt. Erie	1970	KVF40 Whitehorn	1870
11	WNER541 Mt. Erie	1985	KVF41 Sedro Woolley	1905
12	WNER541 Mt. Erie	1975	KOW41 Cougar Mtn	1915

1. STV/GTE shall pay to Puget Power cash payments totalling Four Million Dollars, U.S. (\$4,000,000.00, U.S.) per the following schedule.
 - a. One Million Dollars, U.S. (\$1,000,000.00, U.S.) no later than thirty (30) calendar days after the effective date of the final agreement.
 - b. A total of Two Million Dollars, U.S. (\$2,000,000.00, U.S.) in ten (10) monthly payments of Two Hundred Thousand Dollars, U.S. (\$200,000.00, U.S.) each. These monthly payments shall be due on the first day of each month, with the first payment due on the first day of the second month following the effective date of the final agreement.

In the event that all of the subject paths are cleared prior to the completion of these monthly payments, the remaining sum shall be paid no later than thirty (30) days after all of the subject paths have been cleared.
 - c. Five Hundred Thousand Dollars, U.S. (\$500,000.00, U.S.) no later than thirty (30) calendar days after Puget Power notifies STV/GTE that Path No. 8, WEF234 (Yelm) - KRN47 (Electron) has been cleared.
 - d. Five Hundred Thousand Dollars, U.S. (\$500,000.00, U.S.) no later than thirty (30) calendar days after Puget Power notifies STV/GTE that Path No. 7, WNEH712 (Talbot Hill) - WNEF853 (Bellevue) has been cleared.
2. Puget Power shall vacate Path No. 8, WEF234 (Yelm) - KRN47 (Electron) no later than 90 days after the effective date of the final agreement.

Puget Power shall vacate Path No. 7, WNEH712 (Talbot Hill) - WNEF853 (Bellevue) no later than 180 days after the effective date of the final agreement.